

# Army Network Centric Operations and Warfare: *Putting Power to the Edge*

*LTG Steven W. Boutelle*

*CIO/G-6*

*7 October 2003*

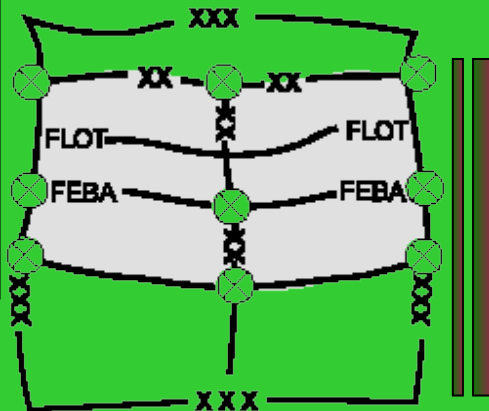


# Evolving IT War Fight: A Changed Paradigm

*Yesterday.....*



Contiguous  
Areas of Operations

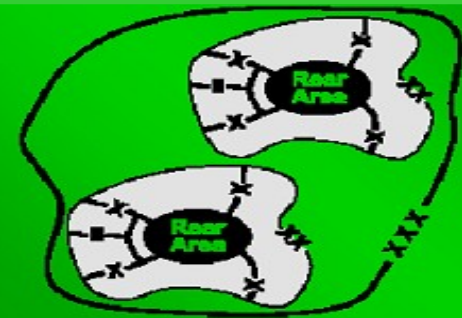


Linear Operations

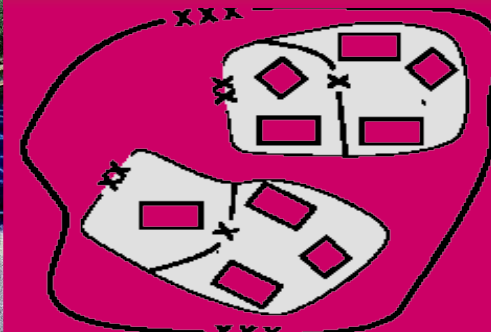
*....Tomorrow*



Linear Operations

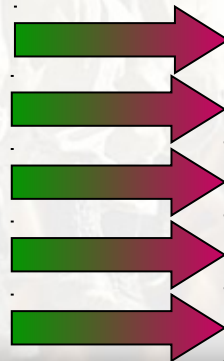


Non-Contiguous  
Areas of Operations



Non-Linear Operations

- Area-Centric
- Low Data Demand
- Large Footprint
- Voice Reliant
- LOS Backbone



- Simultaneous Asymmetric Operations
- High Information Demand
- Embedded, Multi-Functional
- Collaboration Reliant
- Ubiquitous Transport



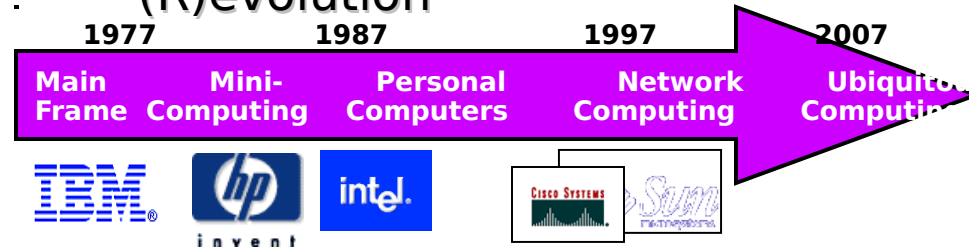


# Driving the C4 Evolution

## Emerging Strategic Environment

- Enhanced Nationalism & Rejection of the West
- Ungoverned groups – terrorism
- Readily available information technology
- Technological acceleration
- Unstable power balances

## Information Age (R)evolution



**From 1989-1999, there were 38 US military deployments ....about once every 14 weeks**



Just Cause

Provide Comfort

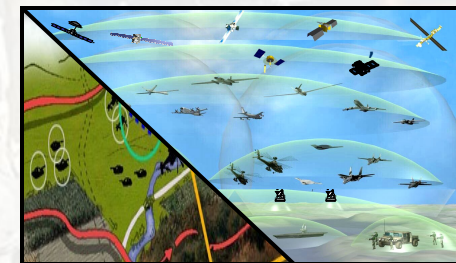
Allied Force

**“The two truly transforming things, conceivably, might be in information technology and information operation and networking and connecting things in ways that they function totally differently than they had previously.” - Secretary Rumsfeld, Aug 2001**

## Network-Centric Information Advantage

Information Quality

- Content
- Accuracy
- Timeliness
- Relevance



**Network Centric Operations  
The Way Ahead**

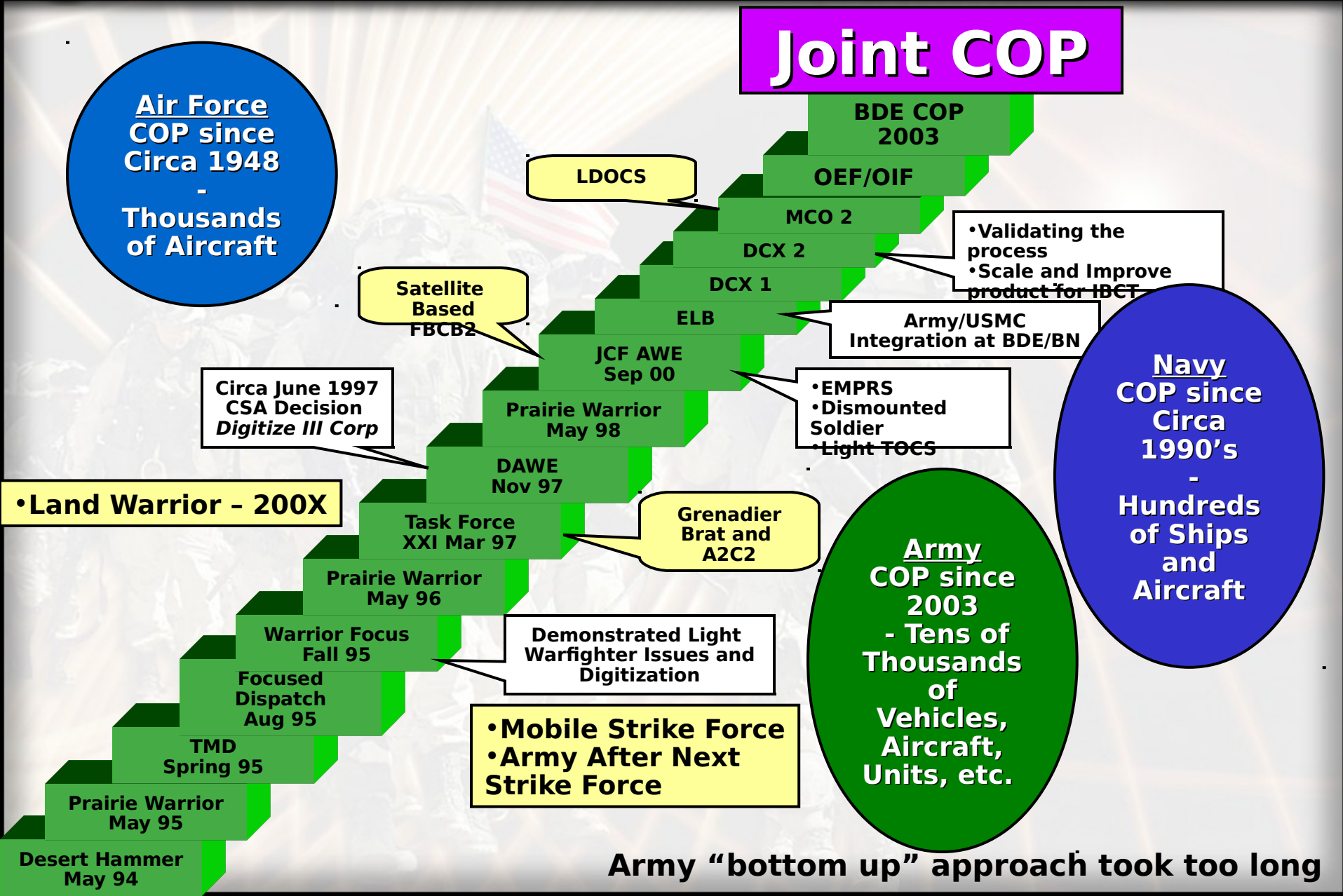
Local Regional Global



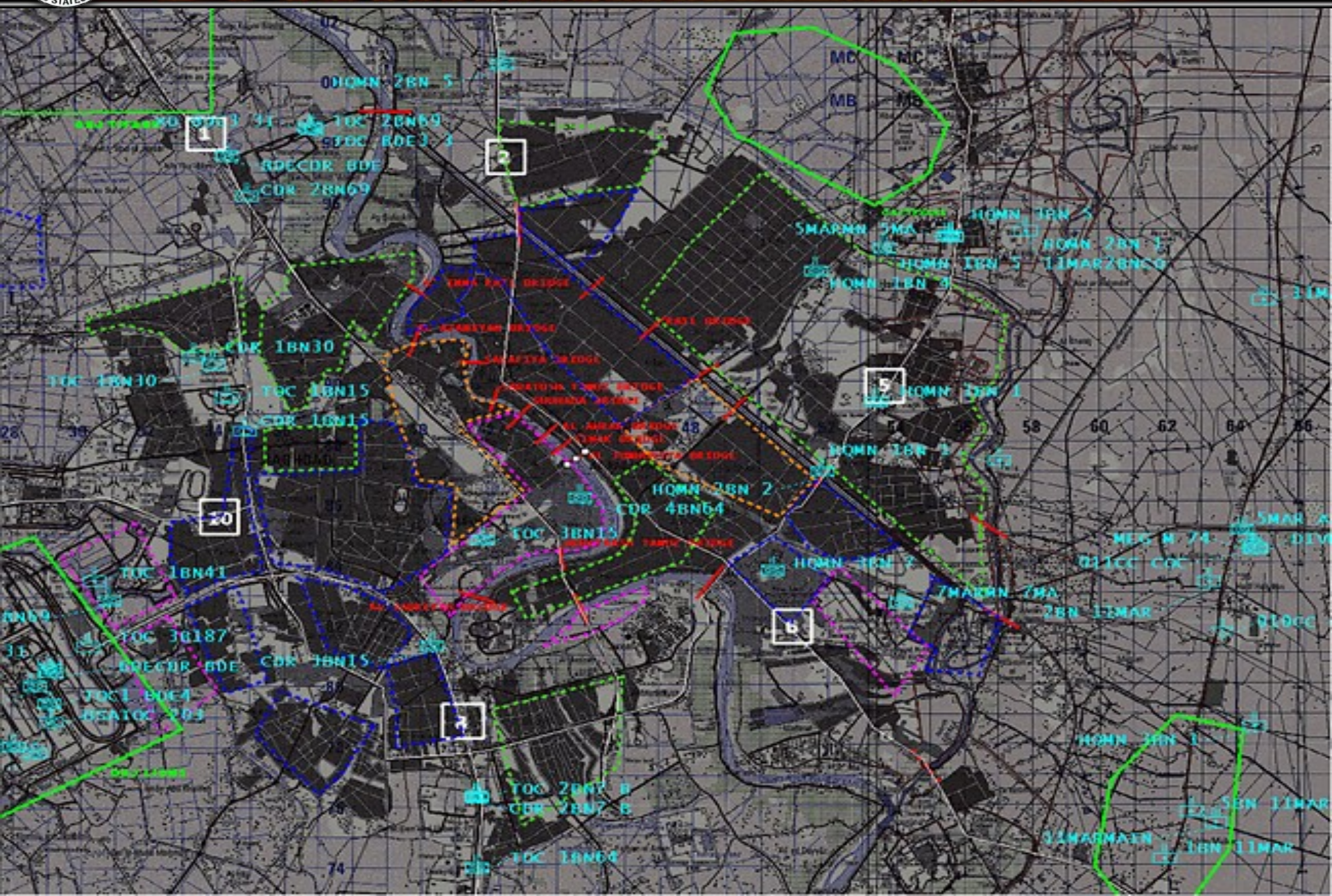
# Exploiting Lessons Learned

**Air Force  
COP since  
Circa 1948  
-  
Thousands  
of Aircraft**

**Joint COP**











# Power of Network Centric Warfare

## **Blue Force Tracking: *Part of the Network Centric Warfare Future***

**101<sup>st</sup> Airborne -**

**101<sup>st</sup> MI Officer: *"BFT is saving our butts over here, comms-wise!"***

**USMC -**

**USMC Division Forward Senior Watch Officer: *"Had it not been for BFT, we probably would have fired upon a friendly 3ID unit"***

**CDR, TSG, USMC: *"We would die without this system"***

**82<sup>nd</sup> Airborne -**

**1<sup>st</sup> BDE XO: *"FBCB2 is a winner! When all other means of communications failed, FBCB2 carried the day"***

**3<sup>rd</sup> Infantry Division -**

**Night Shift Operations Officer, DMAIN: *"At the DMAIN on the move, FBCB2 was the only thing we had for SA"***



# CIO/G-6 Imperatives

- ★ **Reshape Signal Units**
  - Reshape people & equipment for relevancy
    - Joint Data Packages (eg. JCSE, SCAMPI)
  - Include satellite plan
  - Plan to “fix” tactical units for 5-7 years like OIF
- ★ **Manage the Army’s GIG contribution as an Enterprise: GuardNet (3300 Sites), ARNet (940 Sites), and Army Networks**
  - Realign and optimize for the Joint Warfighter
- ★ **Network the Force, including Logistics**
- ★ **Affect the acquisition of C4, empower AAIC for acquisition to ensure systems are Joint from birth**
- ★ **Embrace small unit operations**

**We will sustain/increase momentum with AKM and Current Operations**

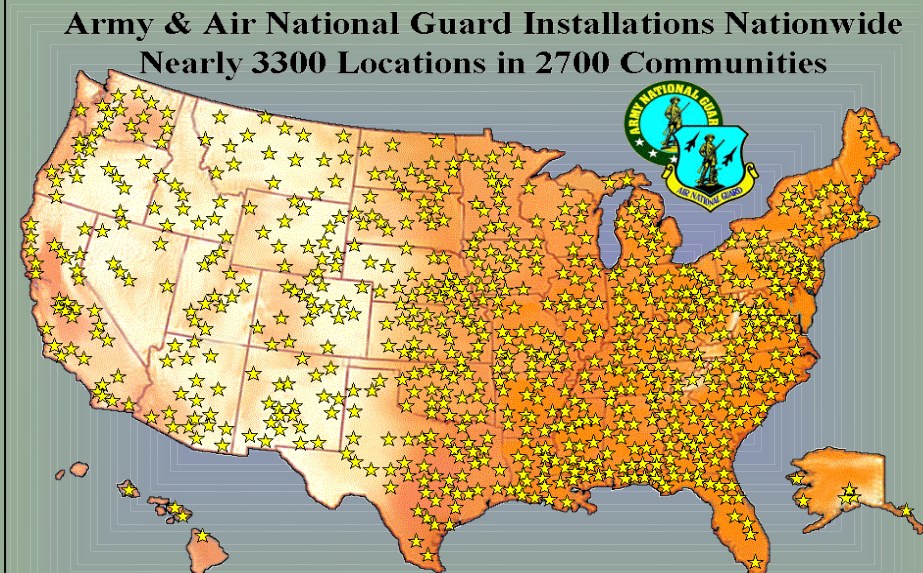
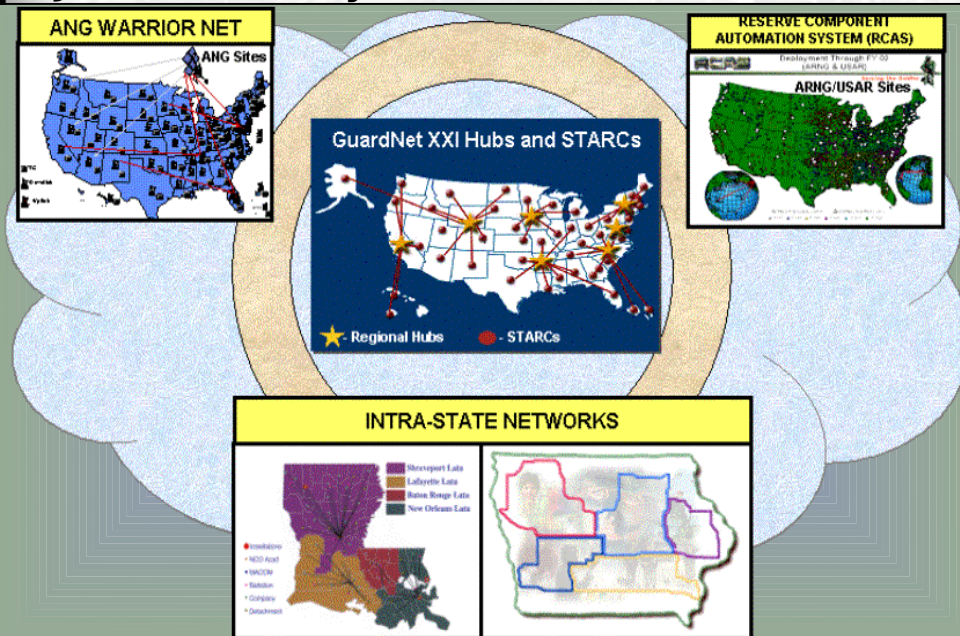




# Army Network Consolidation

- **Network consolidation - Single Enterprise Network**
  - MOAs with USAR and NGB - one Army Enterprise Network
  - Acquisition and management under one element - NETCOM (Network Enterprise Technology Command)
- **Merged Network Operations Security Centers (NOSCs) - NGB, USAR, and NETCOM - one multi-component network management construct**
  - Positions Army to support HLS

June 03 - Army CIO/G-6 is CIO for USAR







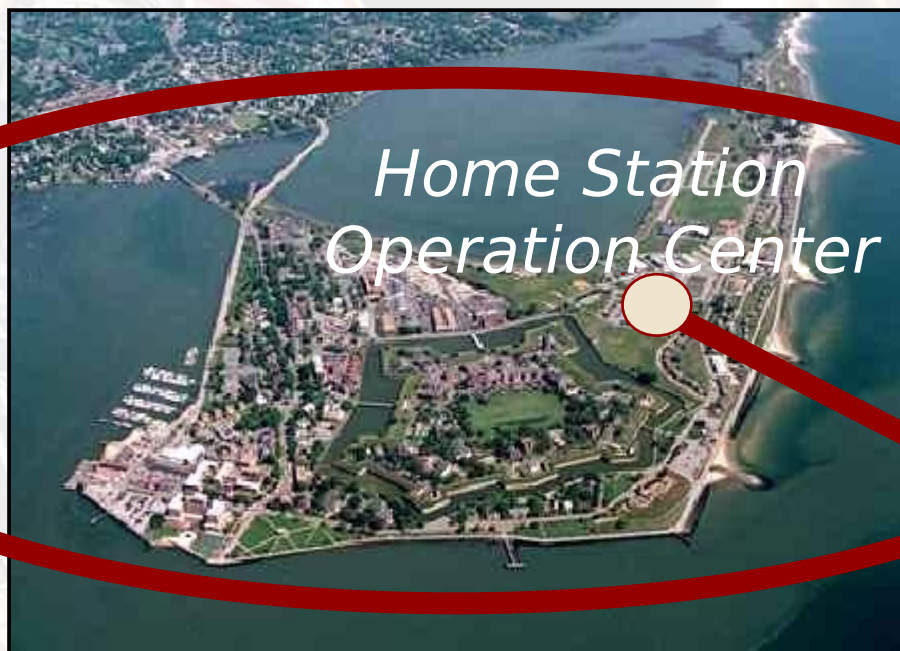
# Army's Networks



## Today

- Old Copper
- Analog, Aging Switches
- Limited Growth Ability

## Installation Information Infrastructure Modernization Program (I3MP)



*Home Station  
Operation Center*

## 2003-2009

- Fiber or New Copper
- Latest Digital Switches
- Latest network equipment for high-speed data
- Upgrade Gateways to DISN/GIG-BE

**Funding:  
\$2.8B  
(Army)**

- Refining HSOC role with TRADOC
- I3MP locations being realigned
- Locations looked at WRT GIG-BE
- Today, only selected Buildings on selected installations

***We must fix the Last  
Mile to the  
Installation***

**Locations:  
All Army installations  
including ARNG and  
Army Reserve**

**Enablers for the Future Force**



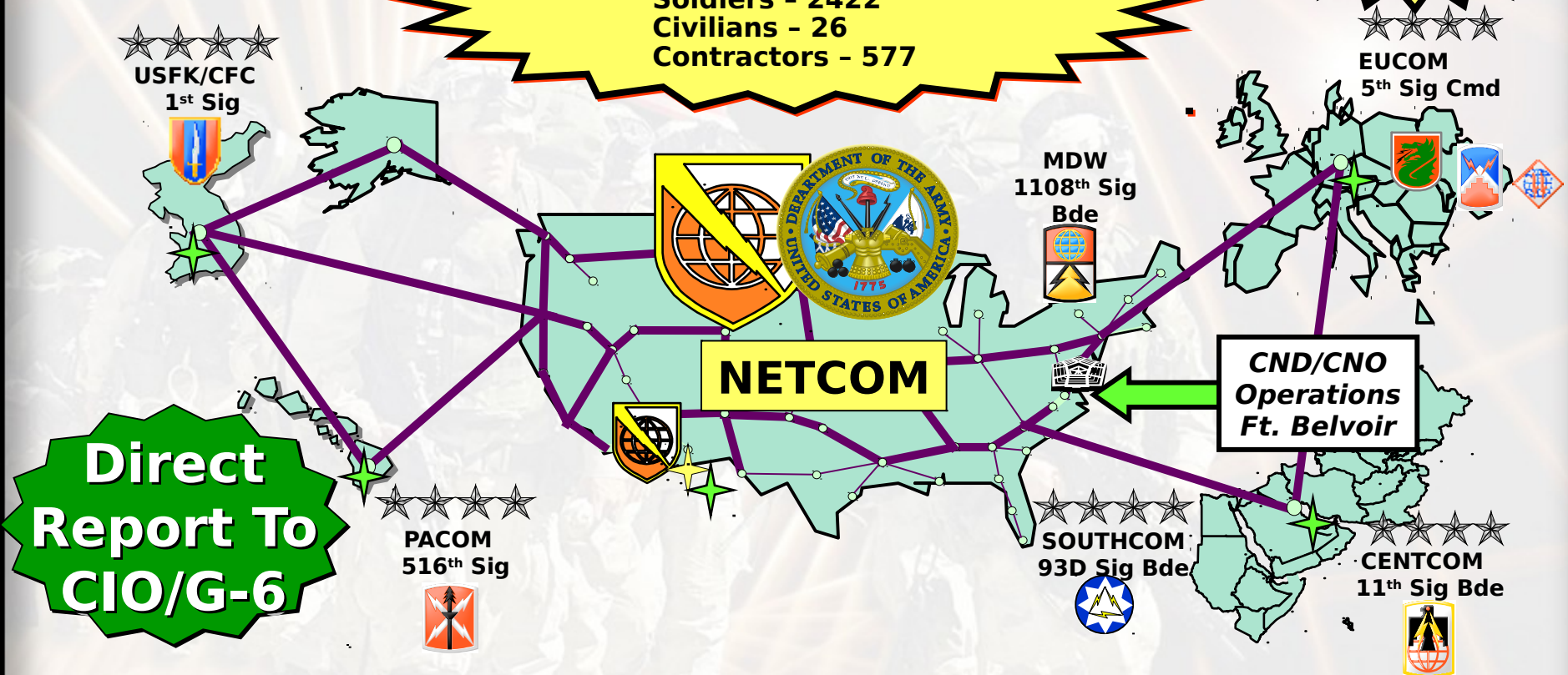
# Network Enterprise Technology Command (NETCOM)

14,000  
Soldiers/Civilians  
And Contractors

## Supporting the Warfighter

Currently Deployed In 21 Countries  
43 countries since 2002:  
Soldiers - 2422  
Civilians - 26  
Contractors - 577

Daily operations  
- 300 Facilities  
In 14 Countries  
Worldwide



Direct  
Report To  
CIO/G-6

Single authority to operate, manage, and protect Army's Infostructure

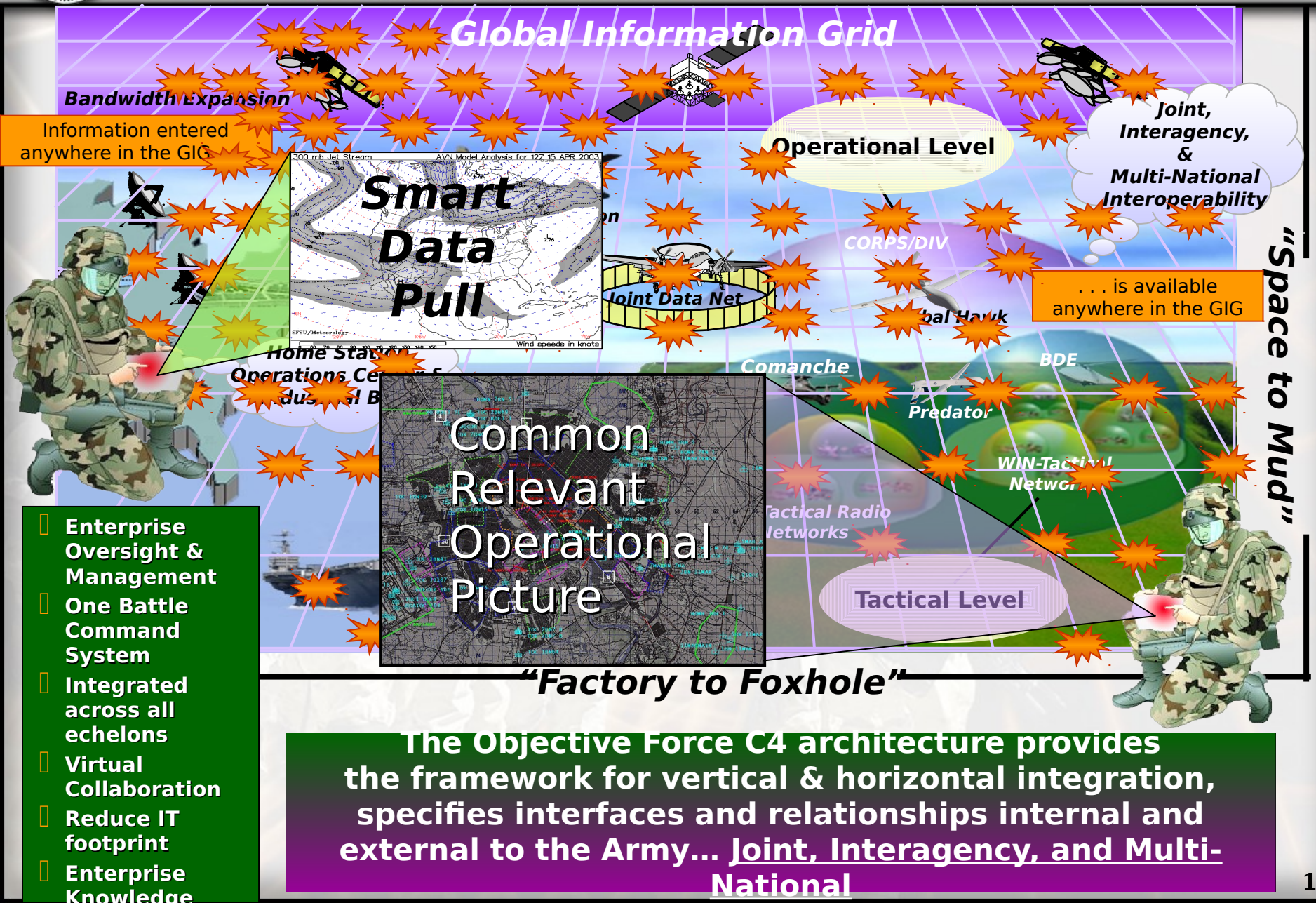
Supporting Combatant Commanders World Wide



Fighting & Defending Army Networks from Home Station to Foxhole



# Future Force C4 Operational Concept







# This is Not Just About Technology

## Global Terrorist Incidents

1968-1997 = 8509 (20 Years)

1997-2003 = 7053 (6 Years)



- Al Qaida
- Islamic Jihad
- Hamas
- Hisbollah
- Palestine Liberation Front
- Etc., Etc.

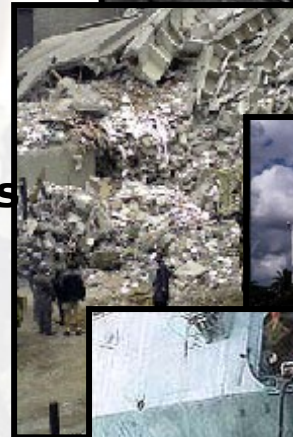
• Trained and  
Eduated - Phd's,  
Engineers,  
technicians  
• Highly  
Dedicated

Threat Level = **HIGH**

OCT 23, 1983  
Marine Barracks  
241 Marines killed



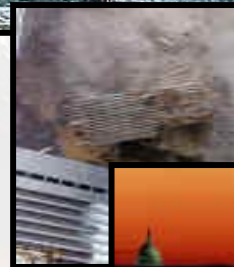
Aug 7 1998  
U.S. Embassies  
In East Africa  
54 killed  
5000 Injured



Oct 12, 2000  
USS Cole  
17 Sailors killed  
39 Injured



Sept 11, 2001  
WTC/Pentagon  
3000+ killed  
thousands more



**335 Terrorist Attacks**  
**Worldwide Since 9-11**







# Questions?

LTG Steven W. Boutelle  
CIO/G-6